

[17] Fig. 3 is a rotated view of the mail processing machine of Fig. 2 showing first and second holding locations for holding stacks of first and second sheets.

[18] Fig. 4 is a front view of the first and second holding locations of Fig. 3.

[19] Fig. 5 a front perspective view of an inserting section of the machine of Fig. 1 showing a sensing system.

[20] Fig. 6 is a side view of a grasping mechanism having the sensing system of Fig. 5.

DETAILED DESCRIPTION OF THE INVENTION

[21] One aspect of the invention provides a mail processing machine that will find particular use with processing financial documents. Although particularly useful with such documents, it will be appreciated that the invention may be used with essentially any type of mail or other documents where two or more sheets need to be matched together in a systematic manner. In one specific application, the invention may be used to match one sheet that carries a financial card, such as a credit card, debit card, smart card, customer loyalty card or the like, with one or more additional sheets that need to be in the second mailing. For example, the second sheet may have information, such as the cardholder's name, account number, terms and conditions of the credit card, targeted communications, and the like. Because the information on each of the sheets is tied to the card being mailed, the sheets are specific to the card holder and need to be properly matched prior to sending. To facilitate such matching, each sheet may include a unique identifier, such as a bar code label. Each bar code is then read prior to matching the sheets from each group to make sure each sheet is tied to the card being issued.

[22] Techniques for matching such cards may in some cases employ a relatively expensive machine, typically on the order of about one million dollars, that prints the sheets of each group, attaches cards to the first group of sheets, folds the sheets, prints the sheets of each additional group and folds that group, and then matches the sheets of each group. The machine may further add inserts to the matched sheets, place them into an envelope, and prepare them for mailing. One example of such a machine is described in, for example, copending U.S. Application No. 10/036653 (attorney docket number 20375-17), filed on the same date as the present application, the complete disclosure of which is herein incorporated by reference.

[23] Machines according to the present invention are configured to take groups of pre-printed sheets that already have cards attached and that are folded, along with groups